

REMARKS

Applicants appreciate the thoroughness with which the Examiner has examined the above-identified application. Reconsideration is requested in view of the amendments above and the remarks below.

Cancelled claims

Applicants have cancelled claims 8-13 and 16-18 in view of the claims presented in co-pending U.S. application serial no. 10/916,904.

Rejected claims

Claims 1 and 7 stand rejected under 35 USC § 102(b) as being anticipated by Tsuchida Japanese patent document JP 4-7124. Claims 1, 2 and 7 stand rejected under 35 USC § 102(b) as being anticipated by Casper U.S. Patent No. 3,723,212. Claims 3-5, 14 and 15 stand rejected under 35 USC § 103 as being obvious from Casper in view of Buckley et al. U.S. Patent No. 5,919,387. Claims 7, 14 and 15 stand rejected under 35 USC § 103 as being obvious from Casper or Tsuchida in view of Shiozaki U.S. Patent No. 5,504,308. Applicants respectfully traverse these rejections.

The invention of claim 1

Claim 1 has been amended to recite a susceptor member comprising a susceptor element, based on the description at, for example, page 9, line 28 to page 10, line 4 of the specification. Further, the claim has been amended to specify that the substrate is a metal pipe, based on the description at page 3, lines 23 to 28, that the susceptor member contacts the coating, based on the description on page 4, lines 12 to 14, and to include the

step of removing the susceptor member from the heated pipe and coating, based on the description at page 4, lines 26 to 31.

By way of general explanation, in order to apply certain coverings such as a heat shrink sleeve on coated metal pipe, such as polypropylene coated steel pipe, it is necessary to heat the coating on the pipe to an activation temperature such that it will effectively bond to the heat shrink sleeve or other covering. Prior to the instant invention, when inductive heating was used to heat the pipe and coating, it was found that when the coating was brought to the activation temperature, the coating degraded, distorted or decomposed.

Surprisingly, it was found that, as described in considerable detail in the comparative Examples 1 and 2 and in the Examples at pages 6 to 8 of the present application, by applying a susceptor member on the coating, the assembly could be heated, under field conditions, using an induction coil, to raise the coating to the activation temperature without deterioration of the coating. The susceptor member is then removed, and the heat shrink sleeve or other covering applied by heating it in any conventional manner, for example with a propane torch, to shrink the heat shrink sleeve or other covering down onto the activated coating, and to achieve strong adhesion of the heat shrink sleeve or other covering to the coating, as well as to the metal pipe.

The cited prior art

This method is nowhere described or suggested in the art cited by the Examiner.

Tsuchida Japanese patent document JP 4-7124

The Tsuchida reference discloses a susceptor member 8 that is spaced away by a significant air gap from the coating 12. Further, at the time the susceptor member 8 is energized, the coating 12 has the heat shrinkable sleeve 13 applied on it. Therefore, Tsuchida does not disclose or suggest having the susceptor member contacting the coating as required by claim 1.

Radiant heat from Tsuchida's member 8 will heat the heat shrinkable covering, but will not directly heat the coating, as in the present invention, since the heat shrink covering 13 is interposed between the member 8 and the portion of the coating 12 that is desired to be activated.

Casper U.S. Patent No. 3,723,212

In Casper, the susceptor element is an aluminum foil lamina that is an integral inner layer of a laminate comprising inner and outer paper layers 11 and an adhesive layer 13. Casper does not disclose or suggest heating a metal pipe and a coating adhered on the pipe, as required by the present claims. Further, it is impossible in Casper's structure to remove the susceptor member from the heated substrate (tubular container 10) and the coating (13) adhered on the substrate, after the substrate and coating have been heated, as required by applicant's claims, since, in Casper, the susceptor element is an integral lamina comprising the heated substrate 10 and coating 13.

Buckley et al. U.S. Patent No. 5,919,387

Similarly, the Buckley patent does not disclose or suggest a method of heating a metal pipe and a coating on the pipe, or the possibility of removing the susceptor member after the substrate (pipe) and coating have been heated, as required by applicant's claims.

In Buckley, the susceptor member 50 becomes an integral component of the structure after the plastic members have been heated and melted (Buckley, column 4, lines 5 to 14), where it will be seen that, after the plastic coated susceptor 50 is interposed between the pipe 54 and the coupling 52 and the susceptor is energized, the pipe, coating material on the susceptor member 50 and coupling fuse together.

Shiozaki U.S. Patent 5,504,308

Likewise, Shiozaki does not disclose or suggest heating a metal pipe and a coating on the metal pipe, or a susceptor member that is separable from the materials once heated, as required by applicant's claims. Shiozaki discloses a bendable synthetic resin tube that includes an inductively heatable susceptor formed integrally within the structure of the thermoplastic synthetic resin tube. The susceptor member 2 is disposed in the center of the thickness of the tube wall (Shiozaki, column 3, lines 46 to 50).

It is accordingly considered that none of the references, whether taken singly or in combination discloses or suggests the method required by applicant's claim 1 as amended.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.

Respectfully submitted,



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